

Attorney Docket No. 5515.214-US
Serial No. 09/886,311
Filed: June 21, 2001
Inventors: Knudsen et al.
Express Mail Label No.: EV 246880655 US

Amendments To The Claims

The listing of claims will replace all prior versions, and listings, of the claims in the application.

Listing Of Claims:

Claims 1-91 (Cancelled)

Claim 92 (Currently Amended) ~~An exendin~~ A derivative of an analogue of exendin-4 where said analogue having ~~has~~ an amino acid sequence that differs from the amino acid sequence of ~~exendin-3 or~~ exendin-4 by the substitution of up to ten amino acid residues with any α -amino acid residue, and wherein said derivative (a) has one ~~or two~~ lipophilic substituents ~~are~~ attatched, optionally via a spacer, to ~~amino acid residues and~~ (b) ~~one of the lipophilic substituents is attached to an amino acid residue of~~ said analogue which is not the N-terminal or C-terminal amino acid residue of said analogue.

Claim 93 (Currently Amended) ~~An exendin~~ The derivative of claim 92, wherein said analogue has ~~having~~ an amino acid sequence that differs from the amino acid sequence of ~~exendin-3 or~~ exendin-4 by the substitution of up to six amino acid residues with any α -amino acid residue.

Claims 94-95 (Cancelled)

Claim 96 (Currently Amended) ~~An exendin~~ The derivative of claim 94, wherein the lipophilic substituent has 4 to 40 carbon atoms.

Claim 97 (Currently Amended) ~~An exendin~~ The derivative of claim 96, wherein the lipophilic substituent has 8 to 25 carbon atoms.

Claim 98 (Currently Amended) ~~An exendin~~ The derivative of claim 96, wherein the lipophilic substituent is attached by means of a spacer.

Claim 99 (Currently Amended) ~~An exendin~~ The derivative of claim 98, wherein the spacer is an unbranched alkane α,ω -dicarboxylic acid group having from 1 to 7 methylene groups.

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Claims 100-103 (Cancelled)

Claim 104 (Currently Amended) ~~An exendin~~ The derivative of claim 96, wherein the lipophilic substituent is a straight-chain or branched acyl group.

Claim 105 (Currently Amended) ~~An exendin~~ The derivative of claim 104, wherein the acyl group is of the formula $\text{CH}_3(\text{CH}_2)_n\text{CO}-$, wherein n is 4 to 38.

Claim 106 (Currently Amended) ~~An exendin~~ The derivative of claim 105, wherein the acyl group is $\text{CH}_3(\text{CH}_2)_6\text{CO}-$, $\text{CH}_3(\text{CH}_2)_8\text{CO}-$, $\text{CH}_3(\text{CH}_2)_{10}\text{CO}-$, $\text{CH}_3(\text{CH}_2)_{12}\text{CO}-$, $\text{CH}_3(\text{CH}_2)_{14}\text{CO}-$, $\text{CH}_3(\text{CH}_2)_{16}\text{CO}-$, $\text{CH}_3(\text{CH}_2)_{18}\text{CO}-$, $\text{CH}_3(\text{CH}_2)_{20}\text{CO}-$ or $\text{CH}_3(\text{CH}_2)_{22}\text{CO}-$.

Claims 107-120 (Cancelled)

Claim 121 (Currently Amended) ~~An exendin~~ The derivative of claim 92, which is $\text{Arg}^{33}, \text{Leu}^{20}, \text{Gln}^{34}, \text{Lys}^{18} (\text{N}^{\epsilon}-(\gamma\text{-aminobutyroyl}(\text{N}^{\alpha}\text{-hexadecanoyl})))$ Exendin-4-(7-45)-NH₂.

Claim 122 (Currently Amended) A pharmaceutical composition comprising ~~an exendin~~ a derivative of claim 92 and a pharmaceutically acceptable vehicle or carrier.

Claim 123 (Currently Amended) A method of treating insulin dependent or non-insulin dependent diabetes mellitus in a patient in need of such a treatment, comprising administering to the patient a therapeutically effective amount of a ~~exendin~~ derivative of claim 92 and a pharmaceutically acceptable carrier.

Claim 124 (New) The derivative of claim 93, wherein said analogue has an addition of up to six amino acids at the C-terminus of exendin-4.

Claim 125 (New) The derivative of claim 124, wherein the lipophilic substituent has 8 to 25 carbon atoms.

Claim 126 (New) The derivative of claim 125, wherein the lipophilic substituent has 12 to 18 carbon atoms.

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Claim 127 (New) The derivative of claim 93, wherein said analogue has an amino acid sequence that differs from the amino acid sequence of exendin-4 by the substitution of up to four amino acid residues with any α -amino acid residue.

Claim 128 (New) The derivative of claim 127, wherein the lipophilic substituent has 8 to 25 carbon atoms.

Claim 129 (New) The derivative of claim 128, wherein the lipophilic substituent has 12 to 18 carbon atoms.

Claim 130 (New) A pharmaceutical composition comprising a derivative of claim 93 and a pharmaceutically acceptable vehicle or carrier.

Claim 131 (New) A method of treating insulin dependent or non-insulin dependent diabetes mellitus in a patient in need of such a treatment, comprising administering to the patient a therapeutically effective amount of a derivative of claim 93 and a pharmaceutically acceptable carrier.

Claim 132 (New) A pharmaceutical composition comprising a derivative of claim 124 and a pharmaceutically acceptable vehicle or carrier.

Claim 133 (New) A method of treating insulin dependent or non-insulin dependent diabetes mellitus in a patient in need of such a treatment, comprising administering to the patient a therapeutically effective amount of a derivative of claim 124 and a pharmaceutically acceptable carrier.

Claim 134 (New) A pharmaceutical composition comprising a derivative of claim 127 and a pharmaceutically acceptable vehicle or carrier.

Claim 135 (New) A method of treating insulin dependent or non-insulin dependent diabetes mellitus in a patient in need of such a treatment, comprising administering to the patient a

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therapeutically effective amount of a derivative of claim 127 and a pharmaceutically acceptable carrier.